

# **DEFENSE INFORMATION INFRASTRUCTURE (DII)**

## **COMMON OPERATING ENVIRONMENT (COE)**

### **DII COE Version Description Document for Distributed Computing Environment (DCE) Client Segment v1.0.0.6 (Solaris 2.5.1) Version Description Document 09/30/97**

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## 1. System Overview

DCE provides services that can be found in other computer networking environments, but packages them so as to make them much easier to use. DCE supports both portability and interoperability by providing the developer with capabilities that hide differences among the various hardware, software, and networking elements an application will deal with in a large network. The DCE Remote Procedure Call (RPC) facility provides a way of communicating between software modules running on different systems that is much simpler to code than older methods. The DCE Security Service provides a reliable way of determining if a user of a distributed system should be allowed to perform a certain action.

## 2. Reference Documents

- *Transarc DCE Introduction*
- *Transarc DCE Command Reference*
- *OSF<sup>®</sup> DCE Application Development Guide - Introduction and Style Guide*
- *OSF<sup>®</sup> DCE Application Development Guide - Core Components*
- *OSF<sup>®</sup> DCE Application Development Guide - Directory Services*
- *OSF<sup>®</sup> DCE Application Development Reference*
- *OSF<sup>®</sup> DCE Problem Determination Guide*
- *Transarc DCE Upgrade Instructions and Release Notes*
- Version Description Document Defense Information Infrastructure (DII) Common Operating Environment (COE) *Distributed Computing Environment (DCE) Client Segment* Version 1.0.0.6, September 30, 1997.

## 3. Version Description

### 3.1 Inventory of Materials

- Magnetic Media: Two 8mm tapes consisting of relative tar of the Distributed Computing Environment (DCE) Client Segment, Version 1.0.0.6/Solaris 2.5.1, September 30, 1997
- Version Description Document Defense Information Infrastructure (DII) Common Operating Environment (COE) Distributed Computing Environment (DCE) Client Segment, Version 1.0.0.6 September 30, 1997
- *Installation Instructions for the Distributed Computing Environment Client (DCEC) Segment* v1.0.0.6, September 30, 1997

### 3.2 Software Changes

## 4. Installation Instructions

Reference the *Installation Instructions for the Distributed Computing Environment (DCE) Client Segment v1.0.0.6* for instructions on installing the DCEC Segment.

## 5. Known Problems and Errors

### 5.1 De-Installation Problems

The DCEC segment CANNOT be de-installed using the Segment Installer. To de-install the DCEC segment, use the steps identified in the *SegDescrip/ReleaseNotes* or in Section 6.2.

### 5.2 Configuration Problems

Occasionally , when configuring and unconfiguring the client frequently you may receive the following error during configuration:

```
ERROR      cdscp - "define cached server" command. Message from cdscp
            ncadg_ip_udp:204.252.13.124 Caced Server clearinghouse
            already exists (dce / cds)
```

This is due to certain files not being deleted during unconfiguration. If this problem is encountered, unconfigure the host and then reboot the system. This should eliminate the error.

## 6. Release Notes

### 6.1 General

1. The *Transarc DCE Upgrade Instructions and Release Notes Solaris Version 2.5 (SunOS Version 5.5)* contains the following note:  
"Solaris 2.5 is not binary-compatible with Solaris 2.5.1. Support for Solaris 2.5.1 is not included as part of this release but will be incorporated into future release of Transarc DCE."

This is INCORRECT. Transarc DCE for Solaris 2.5 will operate normally on a Solaris 2.5.1 machine.

### 6.2 De-Install

The DCEC segment cannot be de-installed using the Segment Installer. To de-install the DCEC segment, login as root and do the following steps.

1. Unconfigure all DCE components on the machine using the command:

```
/etc/dcesetup unconfig -force
```

You may be instructed to issue this command twice depending on whether or not the machine is also a DFS client.

2. Use the `dcesetup` command to “uninstall” the DCE Client software with the command:

```
/etc/dcesetup uninstall
```

You will be asked if you wish to remove everything

```
Uninstall all (remove everything)? (y, n, q, ?) [n]
```

Answer “y” and the `dcesetup` script will remove all of the client software.

3. Remove the DCEC directory structure under the /h partition using:

```
/usr/bin/rm -r /h/COTS/DCE_client
```

4. Use the following commands to remove files from the /etc directory

```
/usr/bin/rm /etc/audit_config.dii
/usr/bin/rm /etc/dce_config.dii
/usr/bin/rm /etc/dce_unconfig.dii
/usr/bin/rm /etc/dtssserver_config.dii
```

5. Finally, to remove the DCES menu item from the sysadmin menubar. Using the `vi` editor, remove the following lines from the

/h/USERS/local/Profiles/SA\_Default/Menus/SA\_Default.main file:

```
#-----
# DCE Menu Items
#-----
PDMENU :Network      :1:R1
PRMENU :DCE          :1:R1
PDMENUEND :

CASCADE :DCE
ITEM    :Configure DCE Client:xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -c_config:1:1:1:R1
ITEM    :Configure DTS server:xterm -title "DCE Setup Screen" -e
```

```
/h/COTS/DCE_client/bin/SARunDCEConfig -d_config:1:1:1:R1
ITEM      :Configure Audit server:xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -a_config:1:1:1:R1
ITEM      :Unconfigure DCE :xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -unconfig:1:1:1:R1
ITEM      :Upgrade Patch      :/h/COTS/DCE_client/bin/upgrade:1:1:1:R1
CASCADEEND      :
```

Logging out and back into the environment will update the <NETWORK> | <DCE> menu.

## 7. Patch List

### 7.1 Solaris Operating System Patches

The Solaris 2.5 Recommended Patches” supersedes earlier patches. Once the machine is running Solaris 2.5 and these patches are installed, you no longer need to install the software patches listed in Section 2.1.2.1, “Applying Required Software Patches from Sun,” of the Transarc DCE Release Notes.

#### Sun Ultra Platforms:

Version 1.1. of the Transarc DCE product for Solaris 2.5.1 requires one patch. This patch corrects a kernel problem in the Solaris operating environment.

patch ID 103093-03

### 7.2 Transarc System Patches

#### Patch 5

Binaries affected:

Solaris 2.5 US

```
./dce1.1/bin/acl_edit
./dce1.1/bin/cm
./dce1.1/bin/cdsd
./dce1.1/bin/cdsadv
./dce1.1/bin/cdsclerk
./dce1.1/bin/dceback
./dce1.1/bin/dced
./dce1.1/bin/dcecp
./dce1.1/bin/dtsd
./dce1.1/bin/fts
./dce1.1/bin/secd
./dce1.1/bin/login.dce
./dce1.1/bin/login_reset
```

```
./dce1.1/dcecp/cell.dcp
./dce1.1/dcecp/host.dcp
./dce1.1/etc/dce_modules/kernel
./dce1.1/etc/dce_modules/login
./dce1.1/kernel/drv/krpch
./dce1.1/kernel/fs/dfs
./dce1.1/kernel/fs/lfs
./dce1.1/kernel/sys/dfscore
./dce1.1/nls/msg/en_US.ASCII/dfscmu.cat
./dce1.1/nls/msg/en_US.ASCII/dfszhscat
./dce1.1/nls/msg/en_US.ASCII/dfszcm.cat
./dce1.1/nls/msg/en_US.ASCII/dfszipcat
./dce1.1/share/include/dce/pthread_basic.h
./dce1.1/usr/lib/libaudit.a
./dce1.1/usr/lib/libdce.a
./dce1.1/usr/lib/libdce.so.3
./dce1.1/usr/lib/libtcl.a
./dce1.1/usr/lib/libdcecp.a
```

#### **SUMMARY OF FIXES:**

- lb\_admin fails after start of HP's PerfView product
- host unconfig ./hosts deletes all host cds entries
- dcesetup needs to sync before changing /etc/name\_XXX
- Add additional message when dceback -host is used without "local"
- unix id bounds are not handled consistently
- Fixes issues with CN RPC call hanging, possibly related to maybe RPC calls
- Solves issue with core dumps in dced group override parsing
- Fixes defect with cdsadv hanging on a semop in a syscall.
- Fixes problem with core dump in binding\_cache\_lookup():sec rca layer
- Repairs dcesetup config not checking for time skew w/ master secd
- Fixes problem with dced dumping core with damaged login context
- Fixes issue with dcecp endpoint show giving connection rejected on udp-only machine
- Repairs problem with integrated login: uid and gid overrides don't work
- Fixes possible tight loop in secd if starting up with corrupted db
- Fixes problem with dce\_acl\_resolve\_by\_name failing
- Fixes problem with dced, allowing ig to rebind to alternative site if the registry becomes unavailable
- Solves problem with the function sec\_rgy\_site\_bind returning an unavailable site
- Fixes problem with DCED not stopping on shutdown, DTS error
- Solves problem with Encina application server dropping core when calling dce routine

- Fixed process\_tgs\_req call which appeared to be causing free-list corruption in secd
- Fixed issue with the predicate in dce\_aud\_next not working correctly
- Fixes defect with function sec\_login\_refresh\_identity deref null pointer
- Fixes defect with function uuid\_create generating duplicates
- Fixes issue with thread.h and \_POSIX\_SOURCE in conflict on Solaris 2.5
- Fixes problem with the command login\_reset failing
- Fixes problem with ACL entry for a deleted principal not being deleted.
- Fixes defect with episode panicking in vol\_efsloDone with B\_DONE set.
- Solves problem with start secval commands resulting in stack overflow when loading DFS kernel modules
- Solaris AFS/DFS Integrated login bug if user is in too many groups
- dcecp group create sets projlist to no, docs say yes
- Enable Episode access caching
- cdsd gives RPC\_CN\_AUTH\_VFY\_CLIENT\_REQ on server failed: can't find appropriate seal
- cm\_ConnByMHosts infinite loop when dfsbind dies
- BulkFetchStatus can violate pipe discipline
- cm lscellinfo (and PIOCTL) return incorrect info
- dcecp fails to process command abbreviations
- dcecp gets confused about its CDS access
- dcecp can be unpredictable in interactive mode after error
- rpcd end-point map clean-up logic fails with large number of entries
- Same-owner checks are done without reference to cellid
- Corrects the problem of sec\_rgy\_attr\_lookup\_by\_id fails if some attrs are deleted
- Correct rpc\_mgmt\_is\_server\_listening() hang
- Unexpected symlink() names create non-mount-points
- Need a way for an admin to enable a password-retry-disabled account
- DCE-rpc-0022 when adding acls during Setup DCE for Encina
- fx: unexpected truncation of file
- dcecp -c cell ping -clients does not accurately return status of all clients in cell - shows OK even if some are down
- deadlock occurring in rpc\_\_cn\_call\_start()
- cdsd on the replica clearinghouse keeps core dumping
- The function 'sec\_key\_mgmt\_manage\_key()' always fails with passwd
- The function 'sec\_key\_mgmt\_change\_key()' corrupts keytab file if the registry is read-only
- Problem detecting a change in the callback address which prevents the connection from being re-established
- The command 'dcecp -c cell ping -clients' does not accurately reflect the state of clients in a DCE 1.1 cell



## **Appendix A Software Changes**

### **DEINSTALL Change**

The DCEC segment cannot be de-installed using the COE Segment Installer. Please read the DCEC segment release notes for instructions on how to successfully de-install.

### **Installing Patches**

The DCEC segment also adds a new option on the menu bar for the Sysadmin Account Group. This new option allows the operator to apply DCE Patches from Patch segments that are installed on the system. DCE Patches require a DCE shutdown while the patch is being applied. This new option will allow a Patch Segment to be installed but the patch does not have to be applied until DCE can be shutdown without interfering with system operations.

## **Appendix B Waivers**

Author: "Stuart Kurkowski" <kurkowss@ncr.disa.mil> at SMTPLink-Logicon

Date: 5/09/97 10:18 AM

Priority: Normal

Receipt Requested

TO: Terry Smith at LOGICON.LC2

CC: smith5m@ncr.disa.mil at SMTPLINK-Logicon

CC: froedea@ncr.disa.mil at SMTPLINK-Logicon

CC: dorseyr@ncr.disa.mil at SMTPLINK-Logicon

CC: cameronc@ncr.disa.mil at SMTPLINK-Logicon

CC: hartleyd@ncr.disa.mil at SMTPLINK-Logicon

CC: goddardm@ncr.disa.mil at SMTPLINK-Logicon

CC: beaudoe@ncr.disa.mil at SMTPLINK-Logicon

CC: gormana@ncr.disa.mil at SMTPLINK-Logicon

Subject: DII COE Engr Office Waivers for Remedy Action Request System

----- Message Contents -----

ALCON,

The DCEC segment is for the COE 3.2 Solaris 2.5.1 OS. The following software and documentation waivers were issued during the CDR.

1. Permission is granted for root access for the Postinstall.
2. Permission is granted for the applications to be assigned to the SysAdmin AcctGroup.
3. Pulldown menus will be provided.
4. The following DII COE documents will be delivered for the DCEC segment:  
Version Description Document (VDD) NOTE: The VDD in the upcoming documentation requirements is being renamed the Software Version Description (SVD). All referenced to the VDD should be replaced with the SVD nomenclature thus this item is the:  
Software Version Description (SVD)  
Installation Procedures (IP)
5. The following DII COE documents are waived for the DCEC segment delivery:  
Software Requirements Specification (SRS)  
Database Design Document (DDD)  
Operators Manual (OM)  
Software Test Plan (STP)

System Test Report (STR)

System Administrator's Manual (SAM), covered by commercial  
documentaion

Software User's Manual (SUM), covered by commercial documentation

6. No softcopies of commercial documentation are required to be delivered.

The date and time of this e-mail should be used in the Delivery Letter and in the Software Version Description (SVD) for quoting the waivers issued by the DII COE Engineering Office.

V/r,  
Capt. Stuart Kurkowski  
DII COE Engineering Office